



Upper Colorado River Dissolved Solids Impairments TMDL Data Results Presentation



**Texas Commission on Environmental Quality, EA Engineering, Science & Technology Inc.,
and The Louis Berger Group**



Project Segments

- Segment 1214 - San Gabriel River – **De-listed**
- Segment 1244 - Brushy Creek – **De-listed**
- Segment 1426 - Colorado River below E.V. Spence Reservoir
- Segment 2204 - Petronila Creek



Segment 1214 - San Gabriel River Overview

- ✦ Placed on the 2000 Clean Water Act (CWA) §303(d) list because **chloride exceeded** the segment specific criteria of **50 mg/L**.
- ✦ Designated Uses
 - ◆ Aquatic Life
 - ◆ Contact Recreation
 - ◆ General Use
 - ◆ Fish Consumption
 - ◆ Public Water Supply
- ✦ **Delisted** – based on data, the average concentration of chloride is below the criteria.

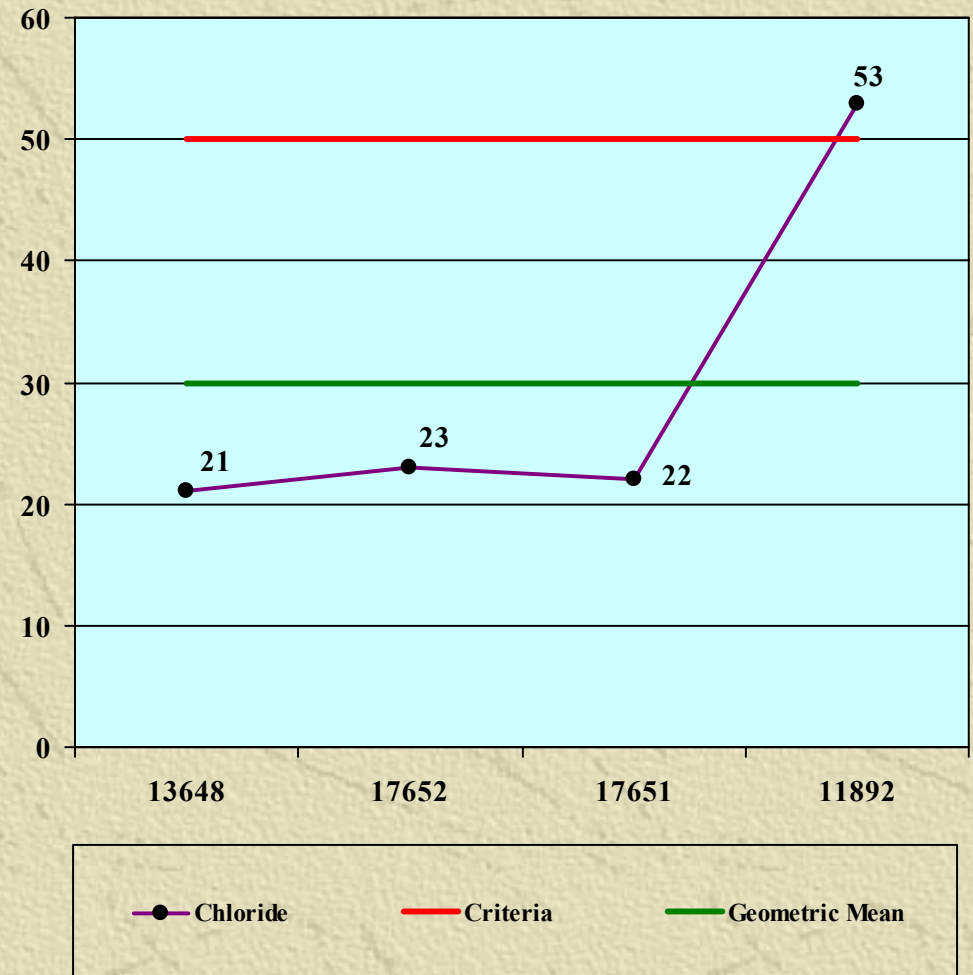


Project Sample Results

Segment 1214 – San Gabriel River

- ✧ **Station ID 13648** - San Gabriel River at CR 0.2 Miles North of Laneport, 7.5 Miles NW of Thrall
- ✧ **Station ID 17652** - San Gabriel River 0.5 Miles South of San Gabriel Town on FM 486
- ✧ **Station ID 17651** - San Gabriel River at CR 429 South of FM 487
- ✧ **Station ID 11892** – San Gabriel River at FM 487 NW of Rockdale

Sample results confirm delisting





Segment 1244 – Brushy Creek Overview

- ✦ Placed on the 2000 Clean Water Act (CWA) §303(d) list because **total dissolved solids** (TDS) **exceeded** the segment specific criteria of **800 mg/L**.
- ✦ Designated Uses
 - ◆ Aquatic Life
 - ◆ Contact Recreation
 - ◆ General Use
 - ◆ Fish Consumption
 - ◆ Public Water Supply
- ✦ **Delisted** – based on data, the average concentration of total dissolved solids is below the criteria.

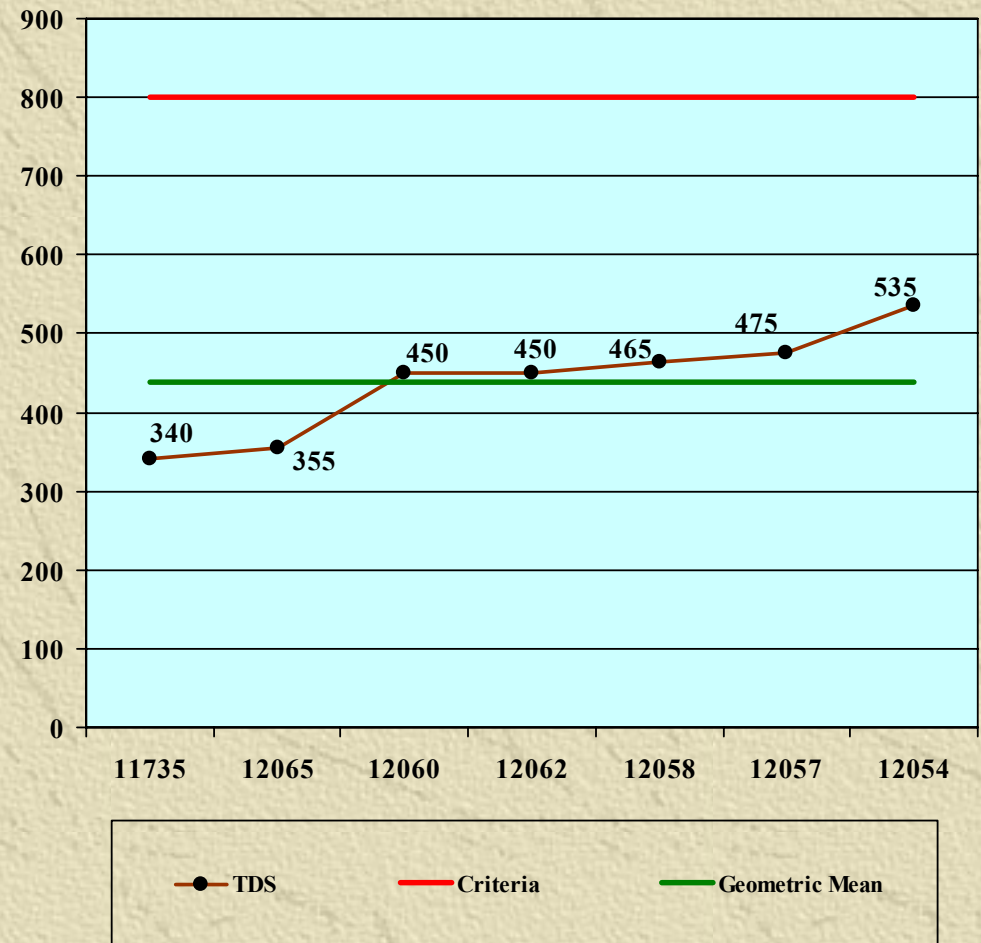


Project Sample Results

Segment 1244 – Brushy Creek

- ✧ **Station ID 11735** – South Brushy Creek at CR 174.
- ✧ **Station ID 12065** – Brushy 150 meters upstream of Lake Creek
- ✧ **Station ID 12060** – Brushy Creek at FM 685
- ✧ **Station ID 12062** – Brushy Creek at CR 122
- ✧ **Station ID 12058** – Brushy Creek at SH 95
- ✧ **Station ID 12057** – Brushy Creek at FM112
- ✧ **Station ID 12054** – Brushy Creek at FM 908 Northwest of Rockdale

Sample results confirm delisting





Segment 1426 – Colorado River below E.V. Spence Reservoir Overview

✦ Placed on the 2000 Clean Water Act (CWA) §303(d) list because total dissolved solids (TDS) exceeded the segment specific criteria of 2000 mg/L.

✦ Designated Uses

- ◆ Aquatic Life
- ◆ Contact Recreation
- ◆ Fish Consumption
- ◆ Public Water Supply



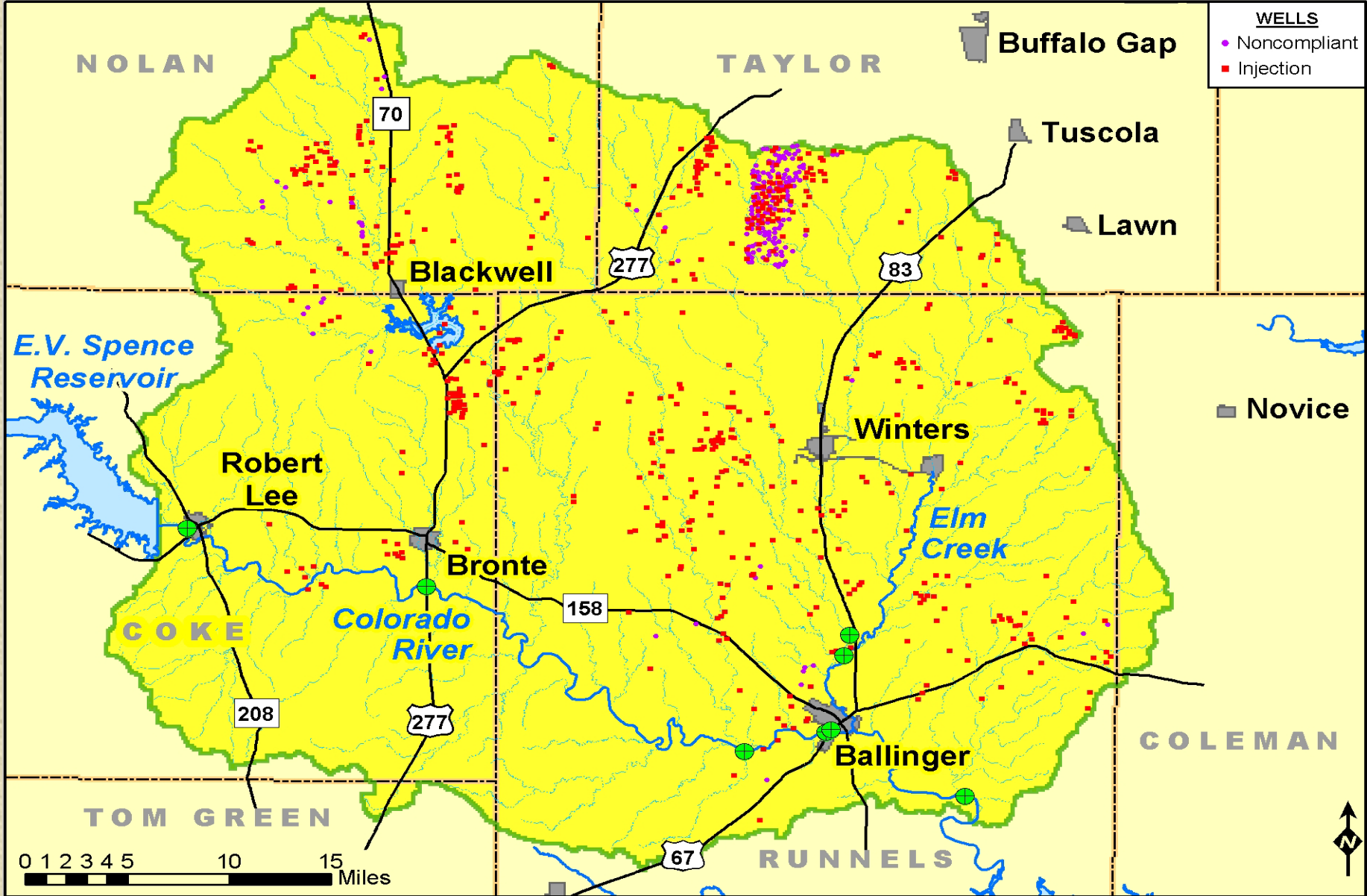
Segment 1426 Colorado River below E.V. Spence Reservoir—Geography

- ✧ Is located within the Colorado River Basin, from a point 2.3 miles below the confluence of Mustang Creek to Runnels County to Robert Lee Dam in Coke County. It has a total length of 66 miles.
- ✧ Winds through an area largely developed by agricultural production. The primary employers are oil and gas extraction, light manufacturing, retail trade, and food services.
- ✧ In fiscal year '03 the Non-point Source Program (NPS) initiated another contract with the Railroad Commission of Texas (RRC) to eliminate a potential source of salinity in the Upper Colorado River drainage basin through the plugging of abandoned, non-compliant oil and gas wells and the re-plugging of improperly plugged wells. A total of 115 wells will be plugged in Runnels County area.
(A previous contract between the NPS Program and the RRC (9/1/99 – 2/28/03) plugged 197 wells in seven (7) counties in the Upper Colorado River drainage basin: Coke, Sterling, Nolan, Mitchell, Scurry, Howard, and Borden counties.)





Oil Well Density





Salt Cedar

Saltcedar Task Force

- TCE calls meeting in San Angelo
- Date: February 15, 2001
- Participants Included:TPWD,NRCS, CRMWD, TSSWCB, TAES, TDA, USFWS, UCRA, LCRA, USACE, Texas Farm Bureau, North Star Helicopter, BASF Chemical Company

Task Force Issues

- Mapping saltcedar distribution
 - Landsat imagery
 - Aerial photography
 - 1-2 meter resolution
- Spraying restrictions
 - Texas Poppy Mallow
 - Concho water snake

Developments

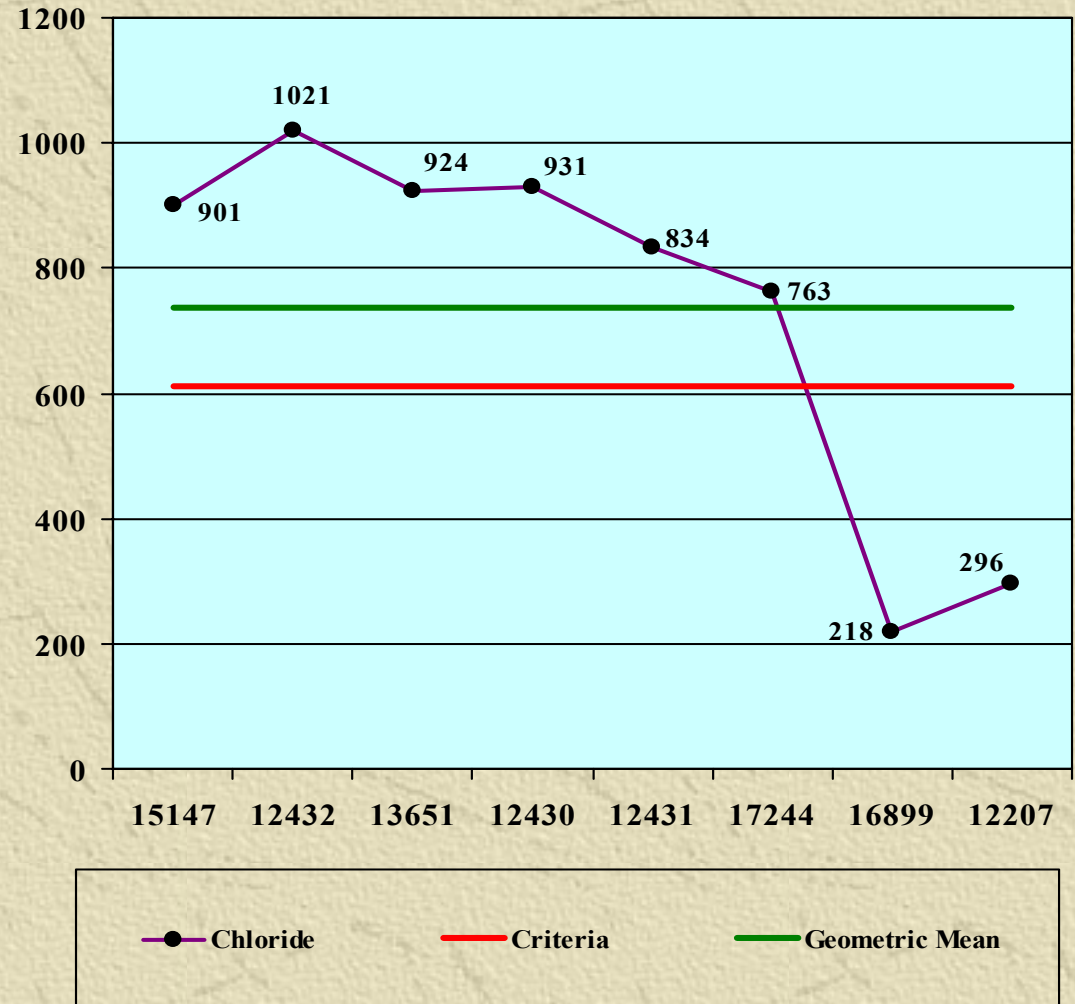
- TSSWCB submits CWA 319(h) funding request to EPA
- Upper Colorado River SWCD contracting agency
- Technical Advisory Group formed to support project
- 319(h) match funds provided by TSSWCB (brush control)
- TCEQ negotiating with EPA on watershed plan for E.V. Spence TMDL to facilitate saltcedar control project



Chloride - Project Sample Results

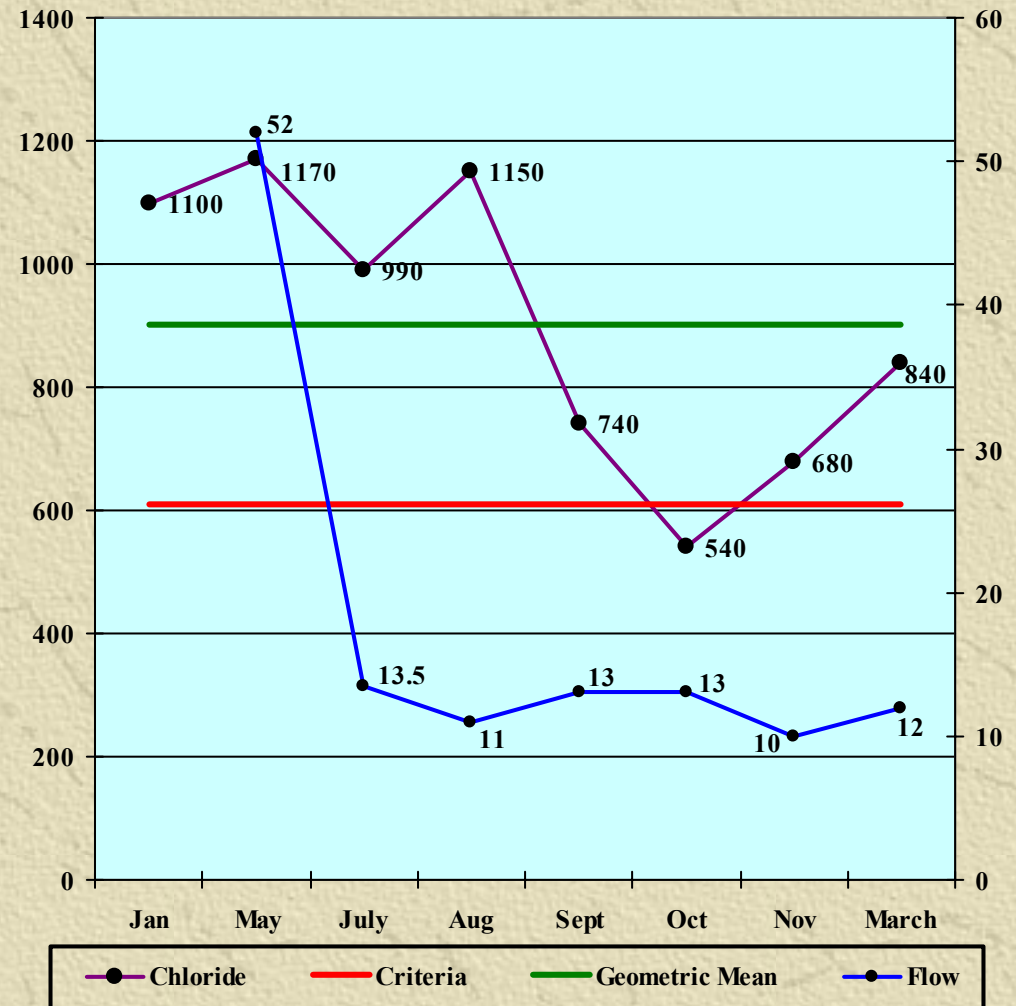
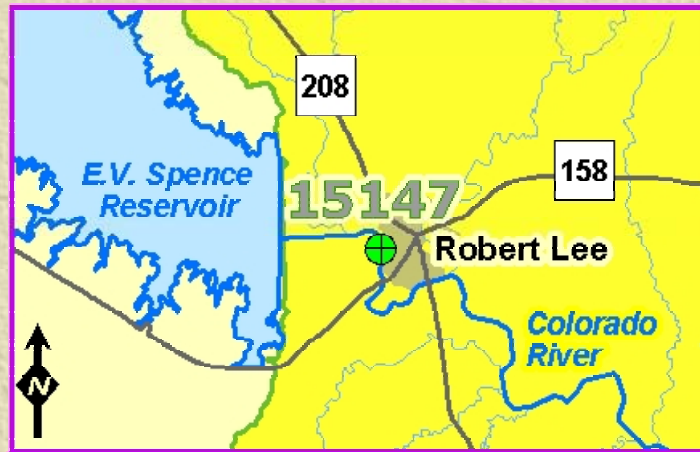
Segment 1426 – Colorado River below E.V. Spence Reservoir

- ✧ **Station ID 15147** – Colorado River near Robert Lee WWTP
- ✧ **Station ID 12432** – Colorado River at US 277 south of Bronte
- ✧ **Station ID 13651** – Colorado River near Ballinger
- ✧ **Station ID 12430** – Colorado River bridge on US 83 in Ballinger
- ✧ **Station ID 12431** – Colorado River bridge on US 67
- ✧ **Station ID 17244** – Colorado River at Blair Ranch
- ✧ **Station ID 16899** – Coyote Creek at CR 342
- ✧ **Station ID 12207** – Elm Creek at CR 330 four miles north of Ballinger



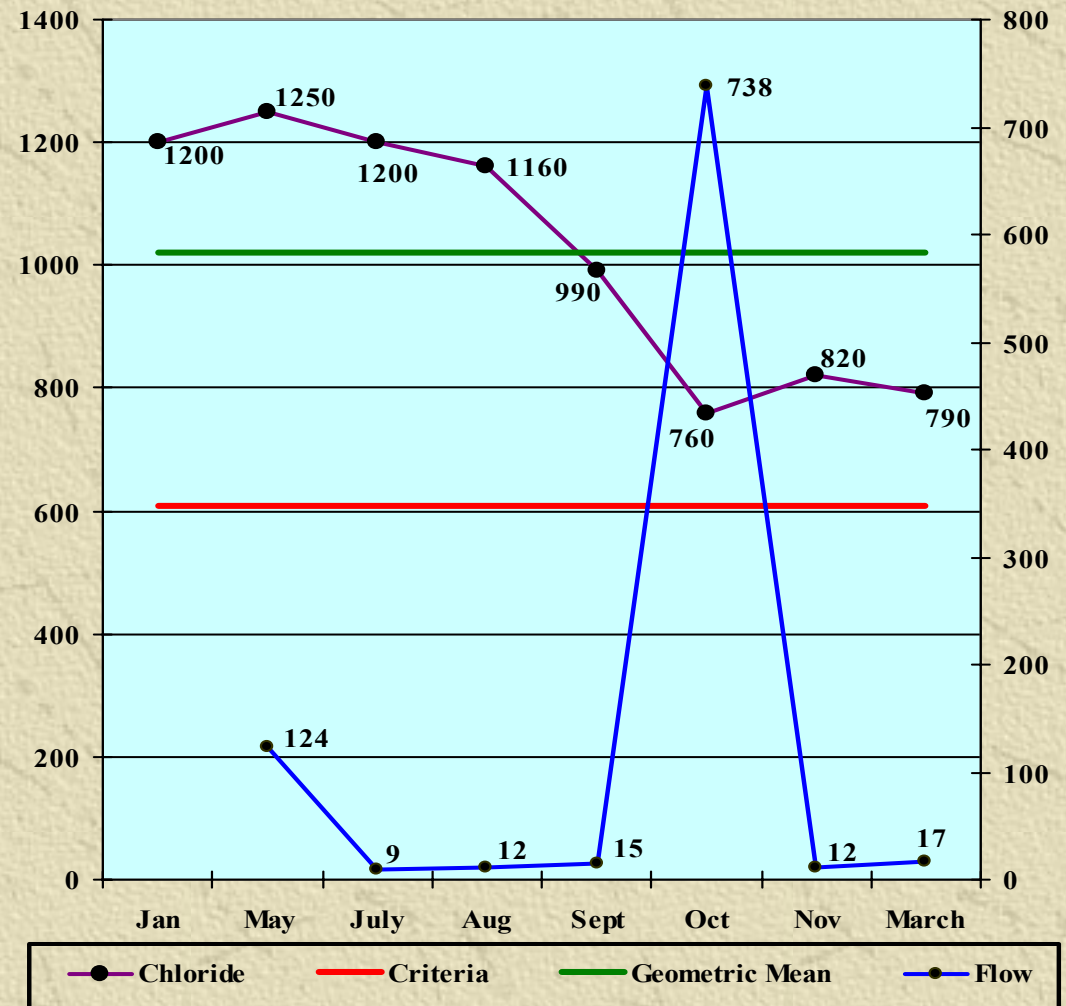


Station ID 15147 Colorado River near Robert Lee WWTP



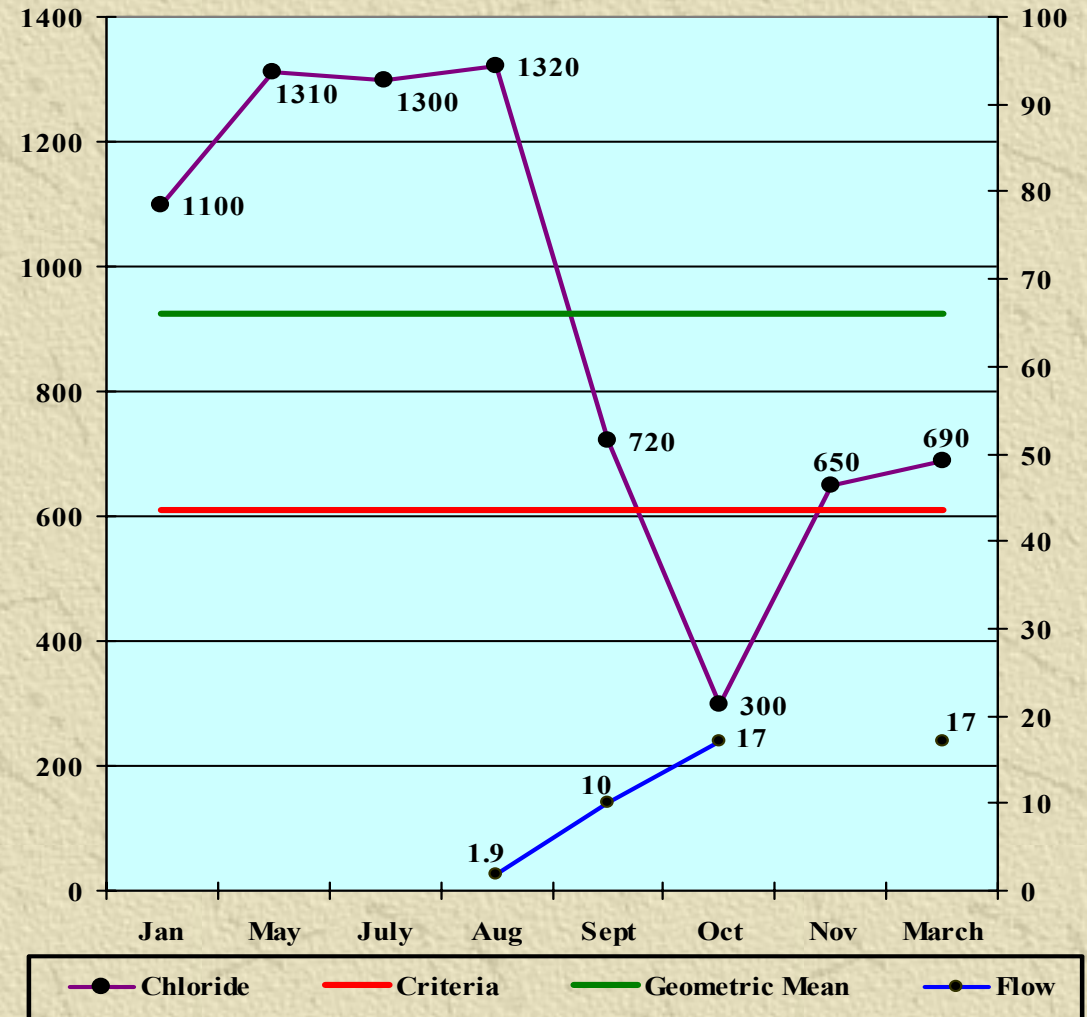
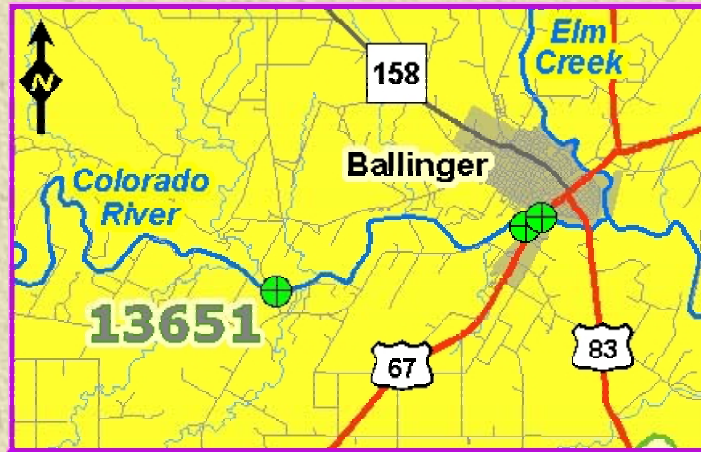


Station ID 12432 Colorado River at US 277 South of Bronte



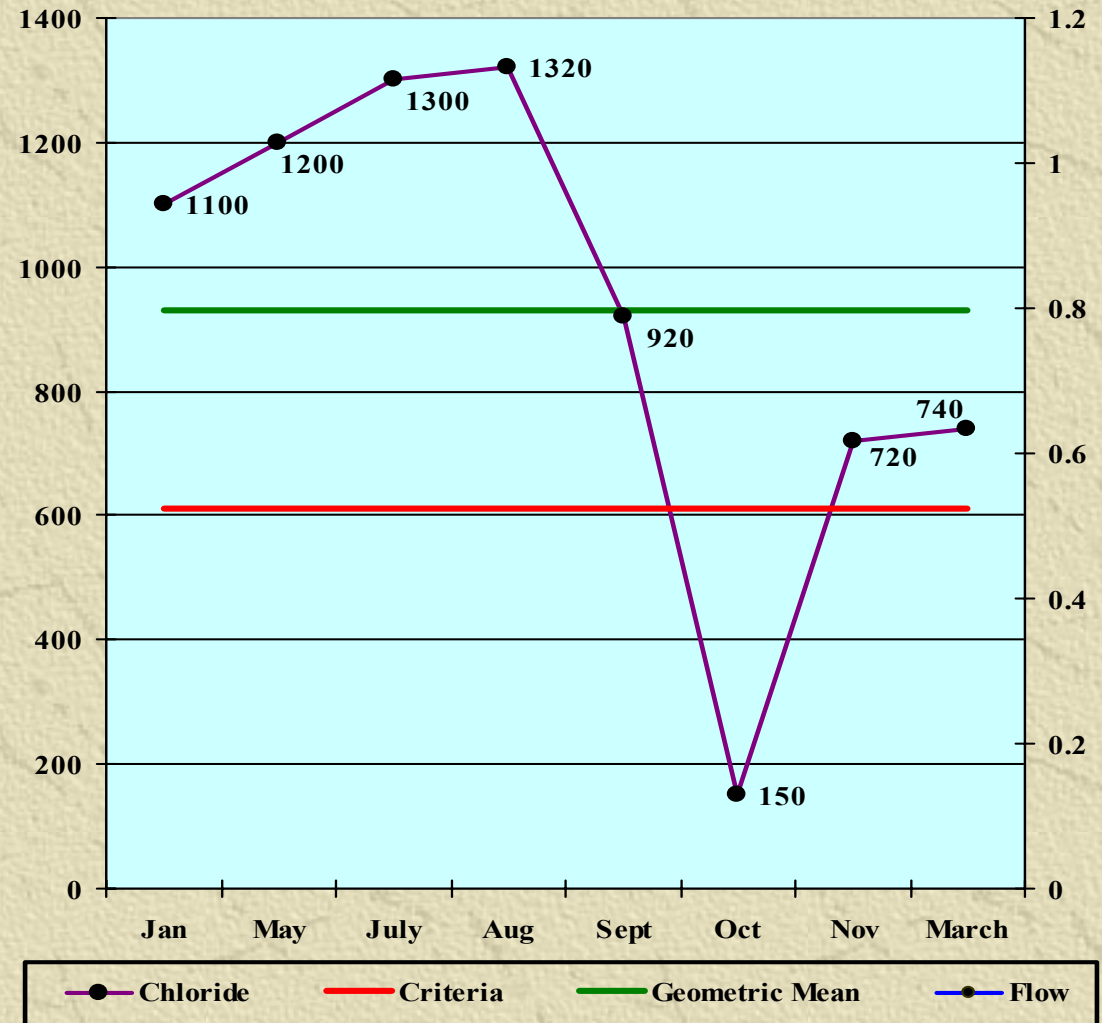


Station ID 13651 Colorado River near Ballinger



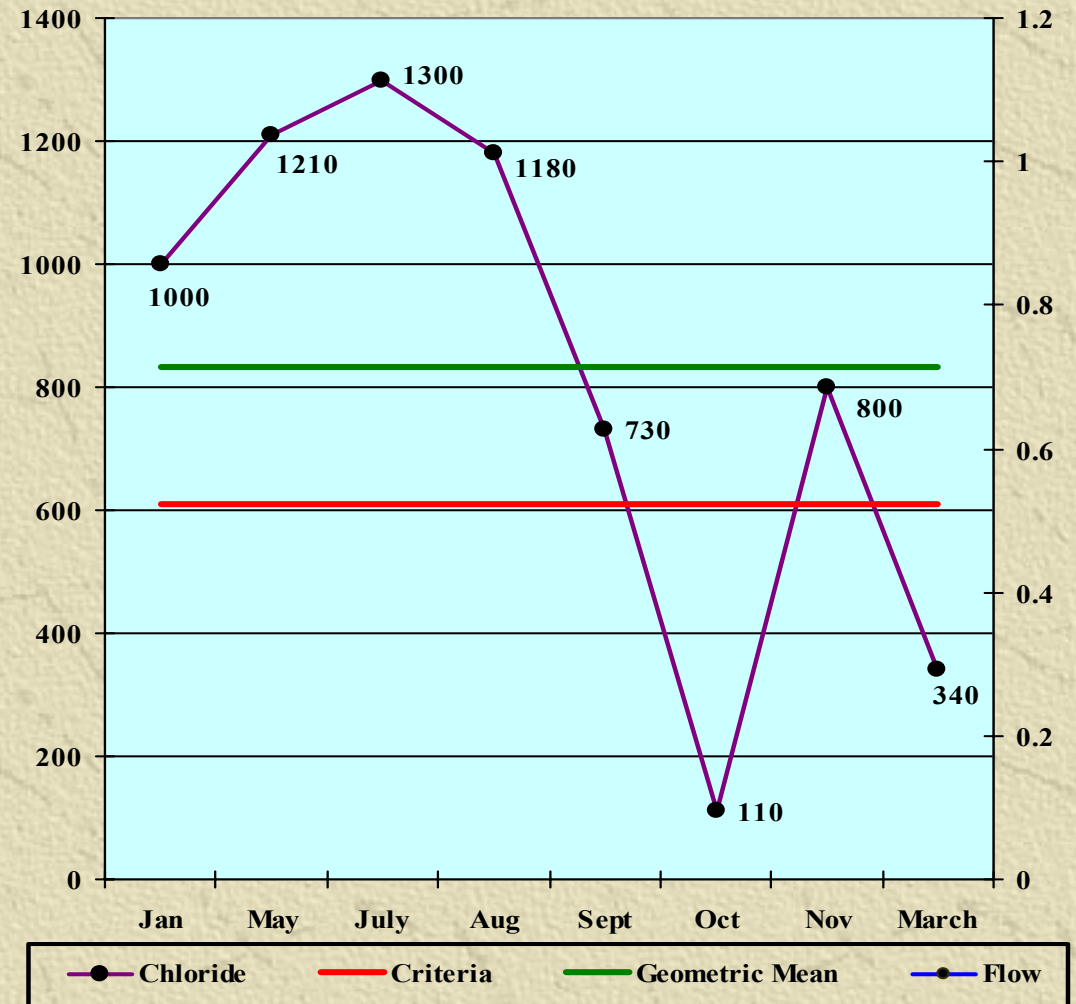


Station ID 12430 Colorado River bridge on US 83 in Ballinger

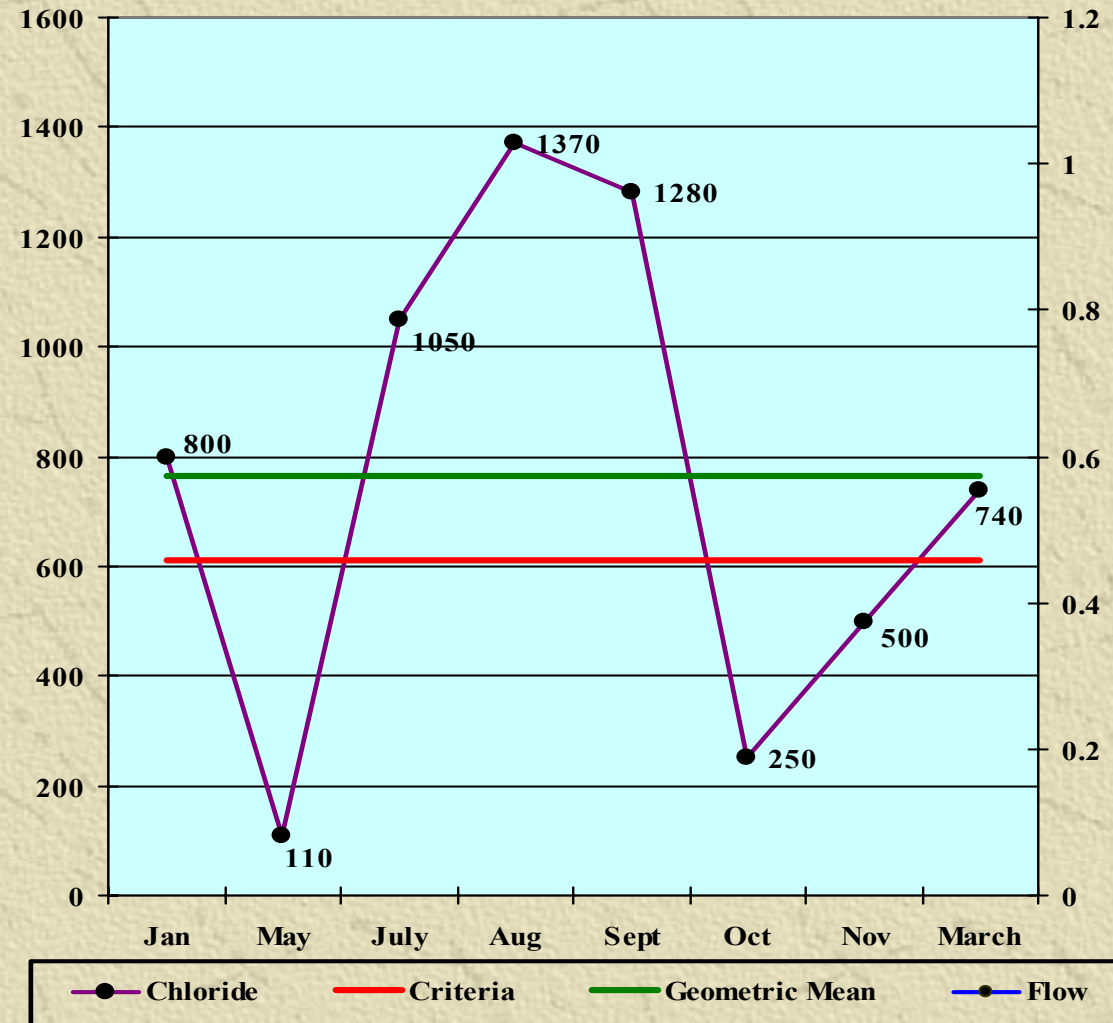




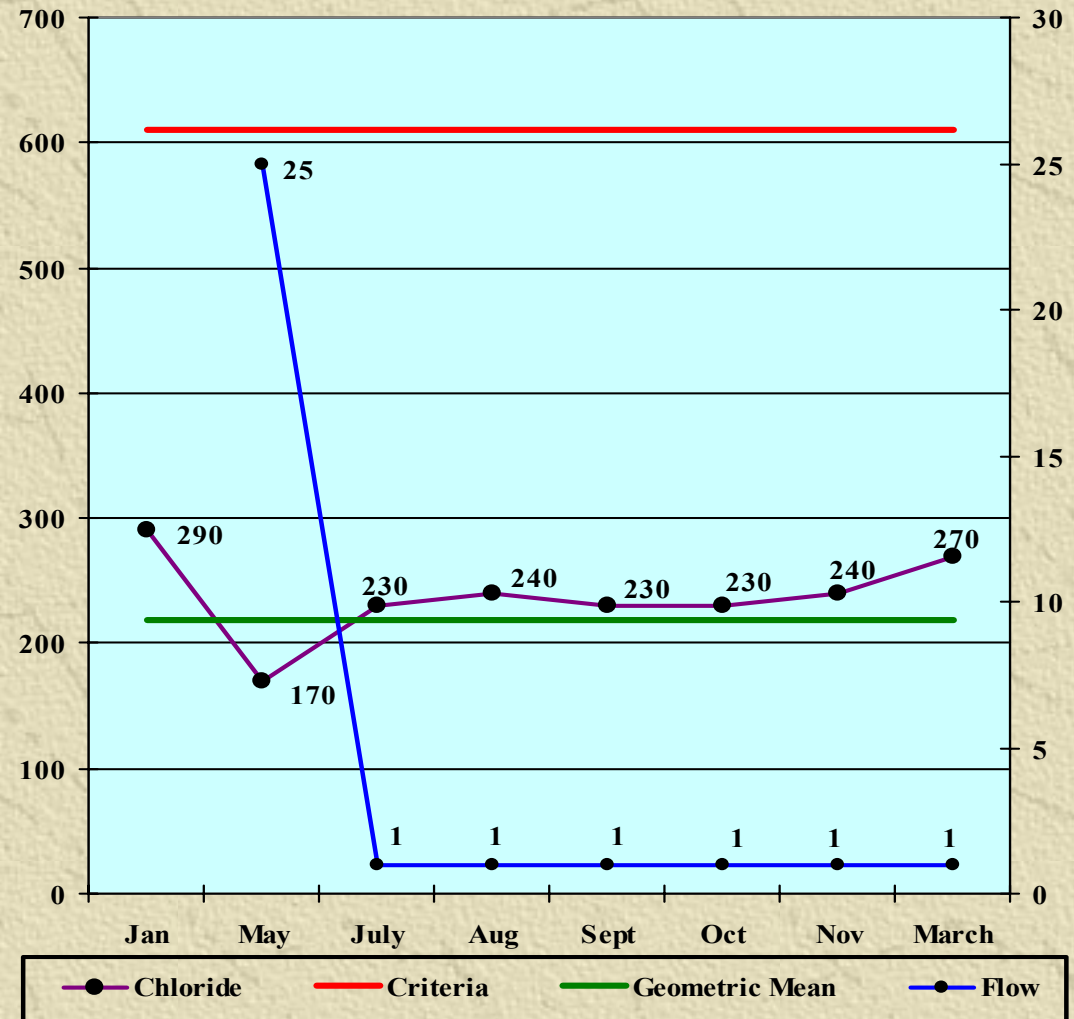
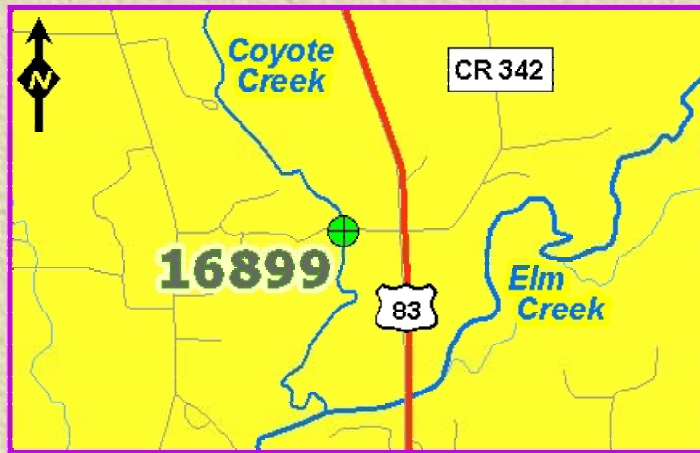
Station ID 12431 Colorado River bridge on US 67



Station ID 17244 Colorado River at Blair Ranch

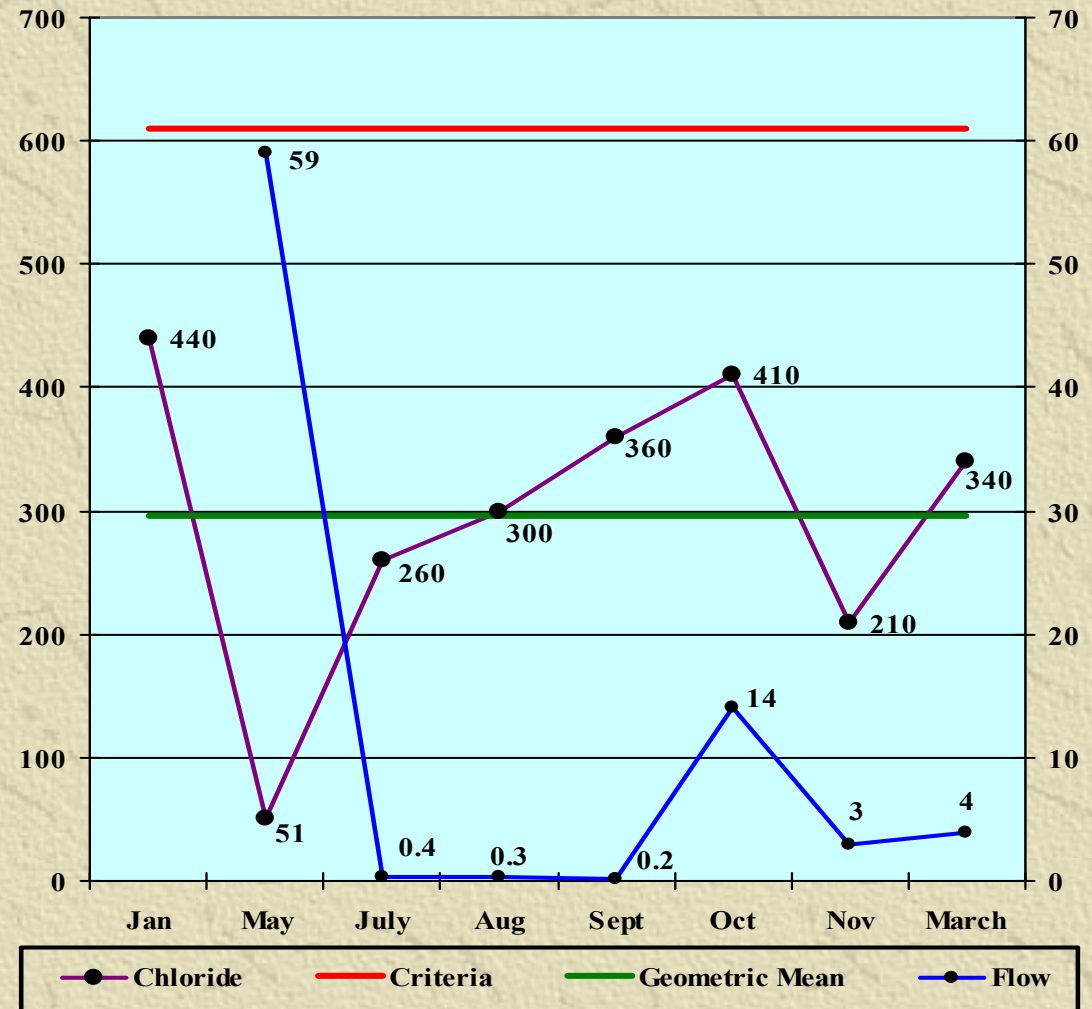


Station ID 16899 Coyote Creek at CR 342





Station ID 12207 Elm Creek at CR 330 four miles north of Ballinger

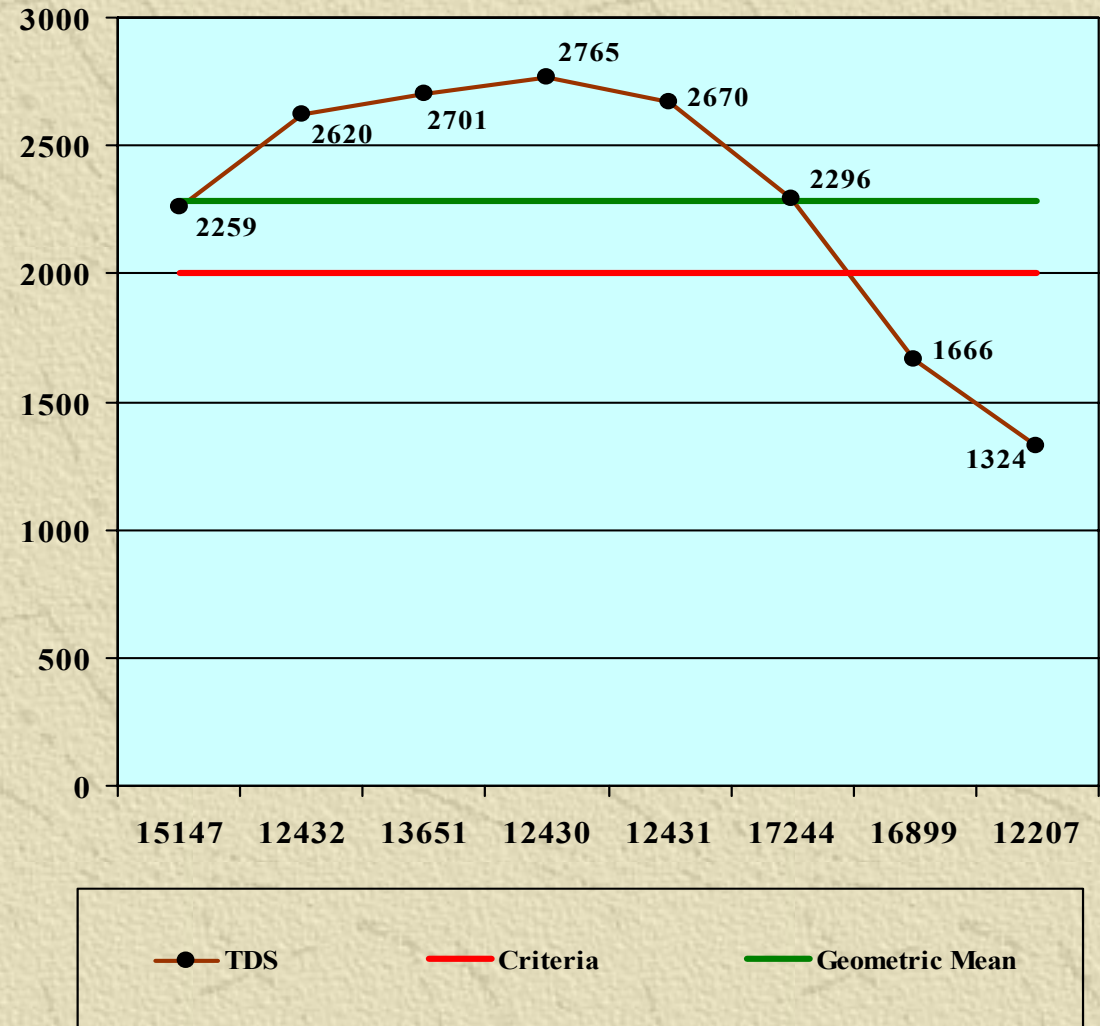




TDS - Project Sample Results

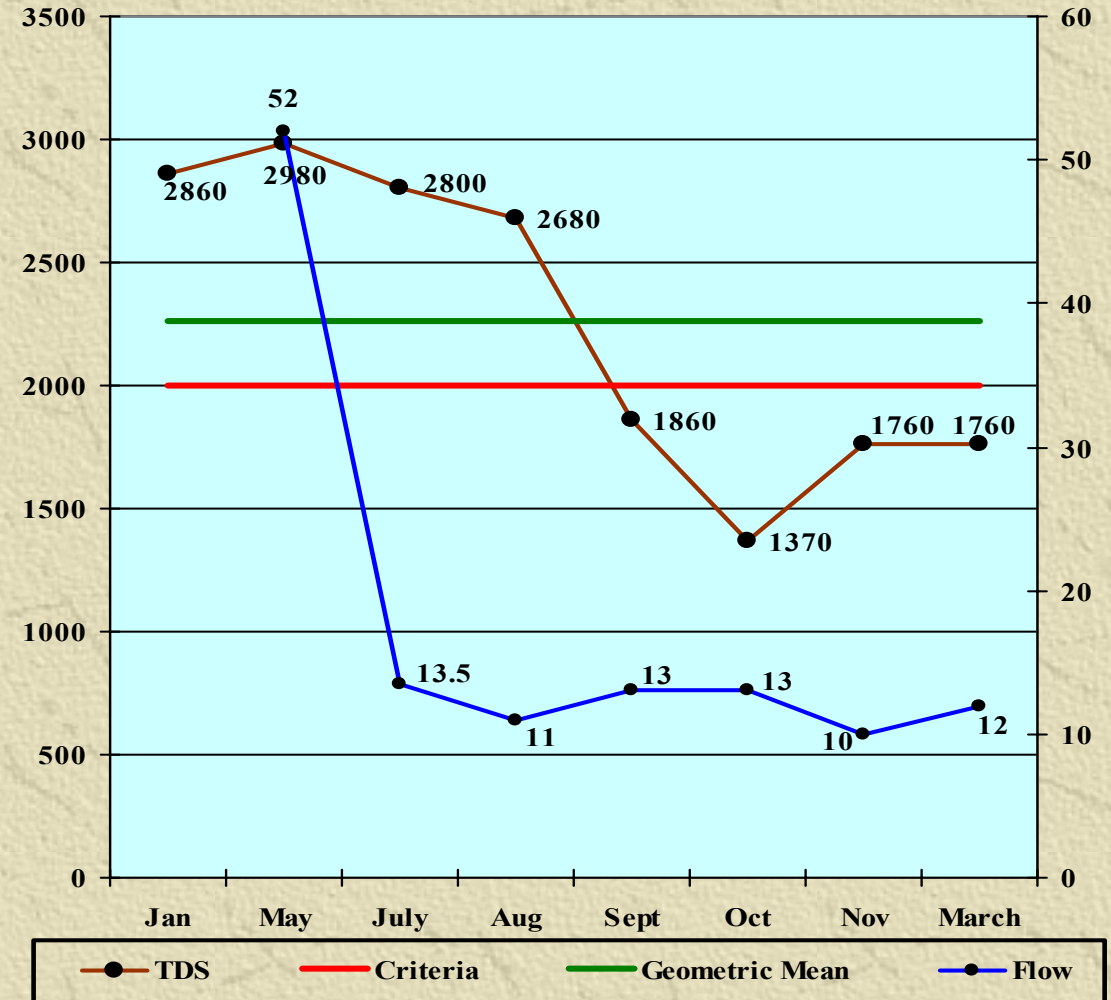
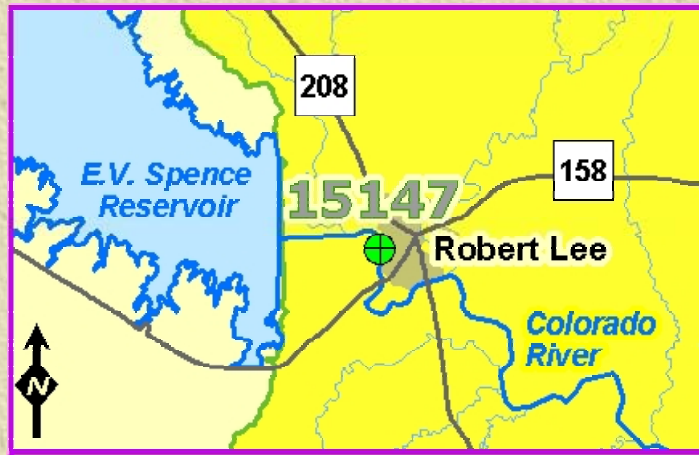
Segment 1426 – Colorado River below E.V. Spence Reservoir

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- ✧ **Station ID 17244** – Colorado River at Blair Ranch
- ✧ **Station ID 16899** – Coyote Creek at CR 342
- ✧ **Station ID 12207** – Elk Creek at CR 330 four miles north of Ballinger



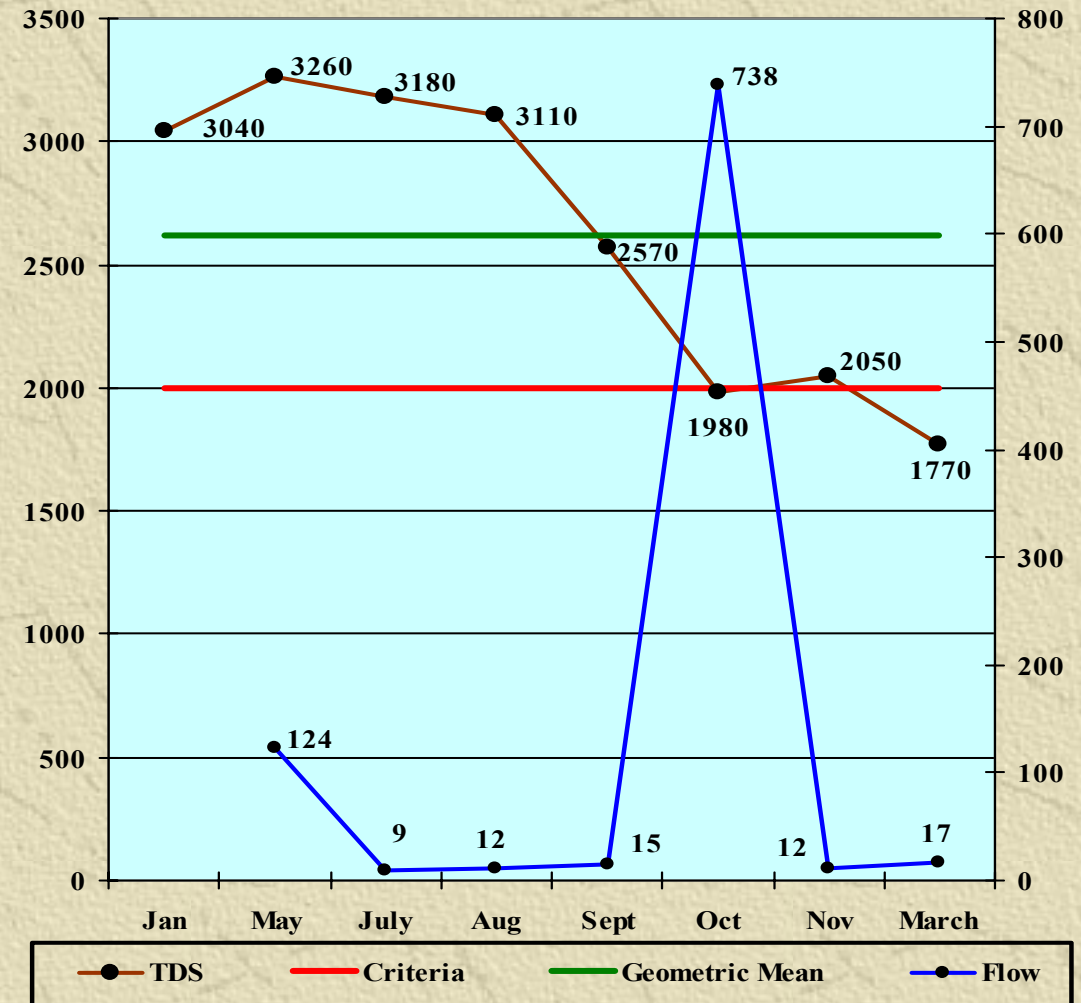
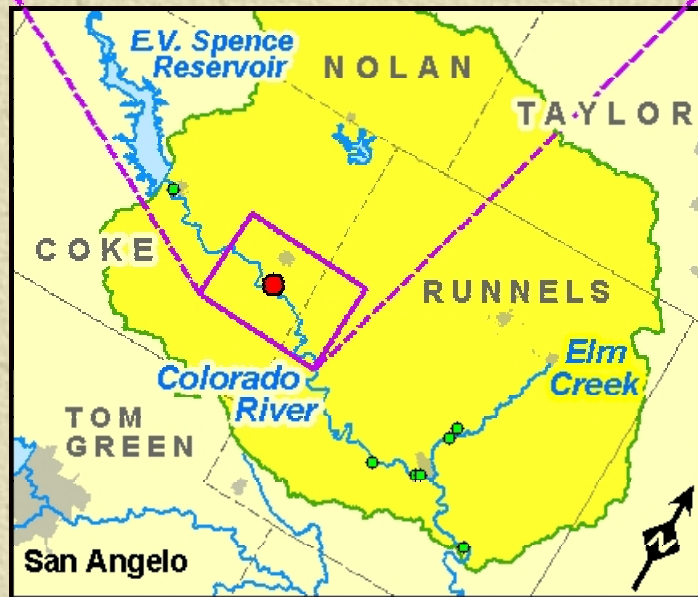


Station ID 15147 Colorado River near Robert Lee WWTP



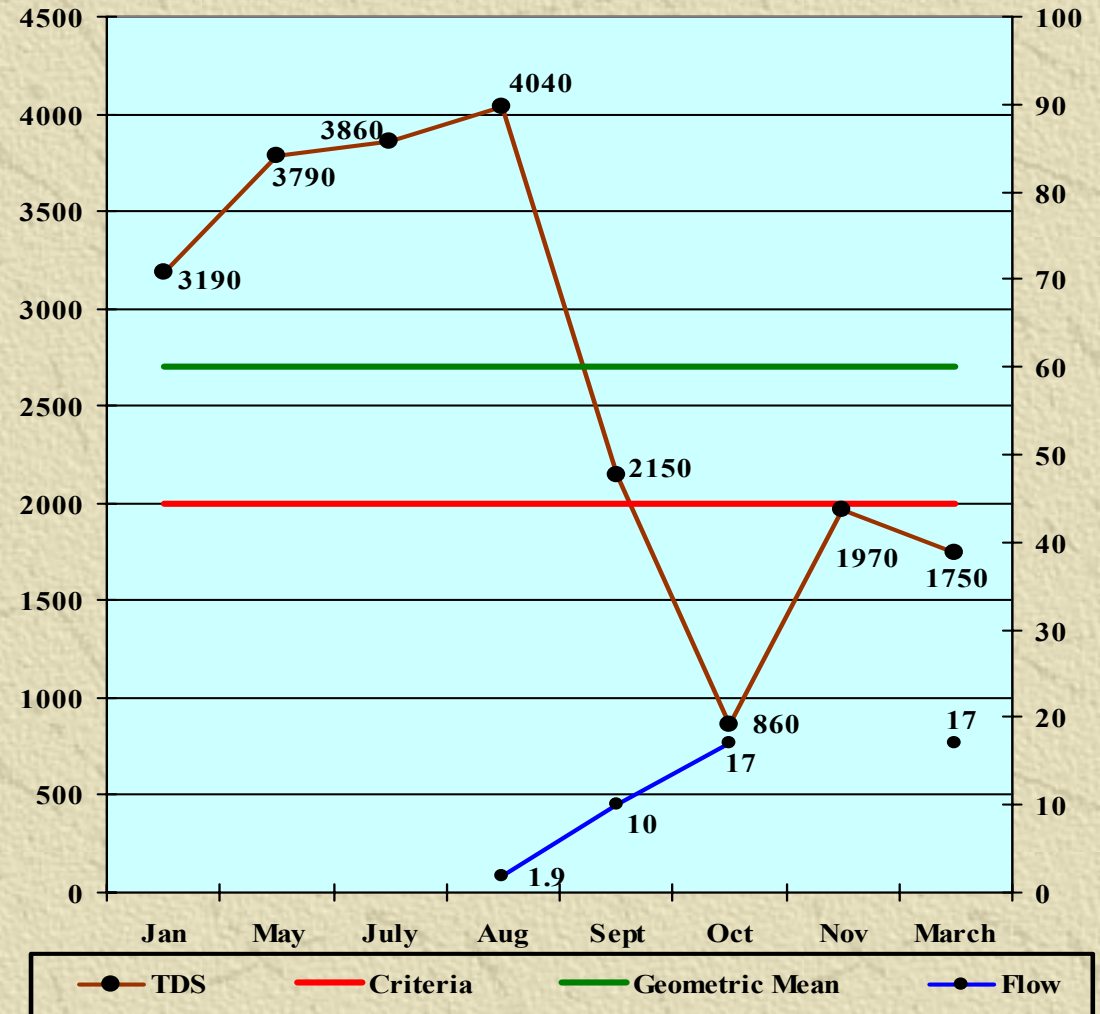
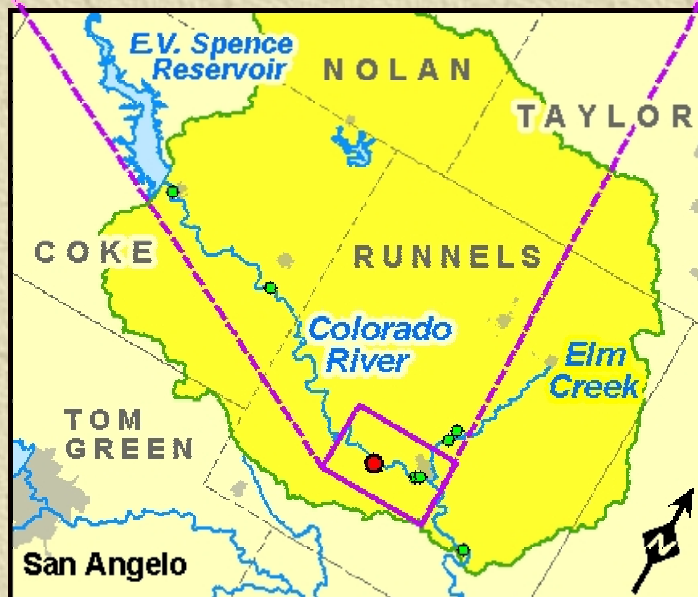
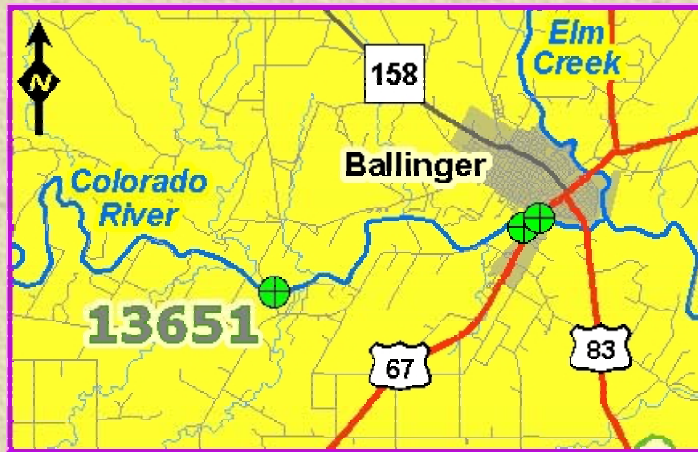


Station ID 12432 Colorado River at US 277 South of Bronte



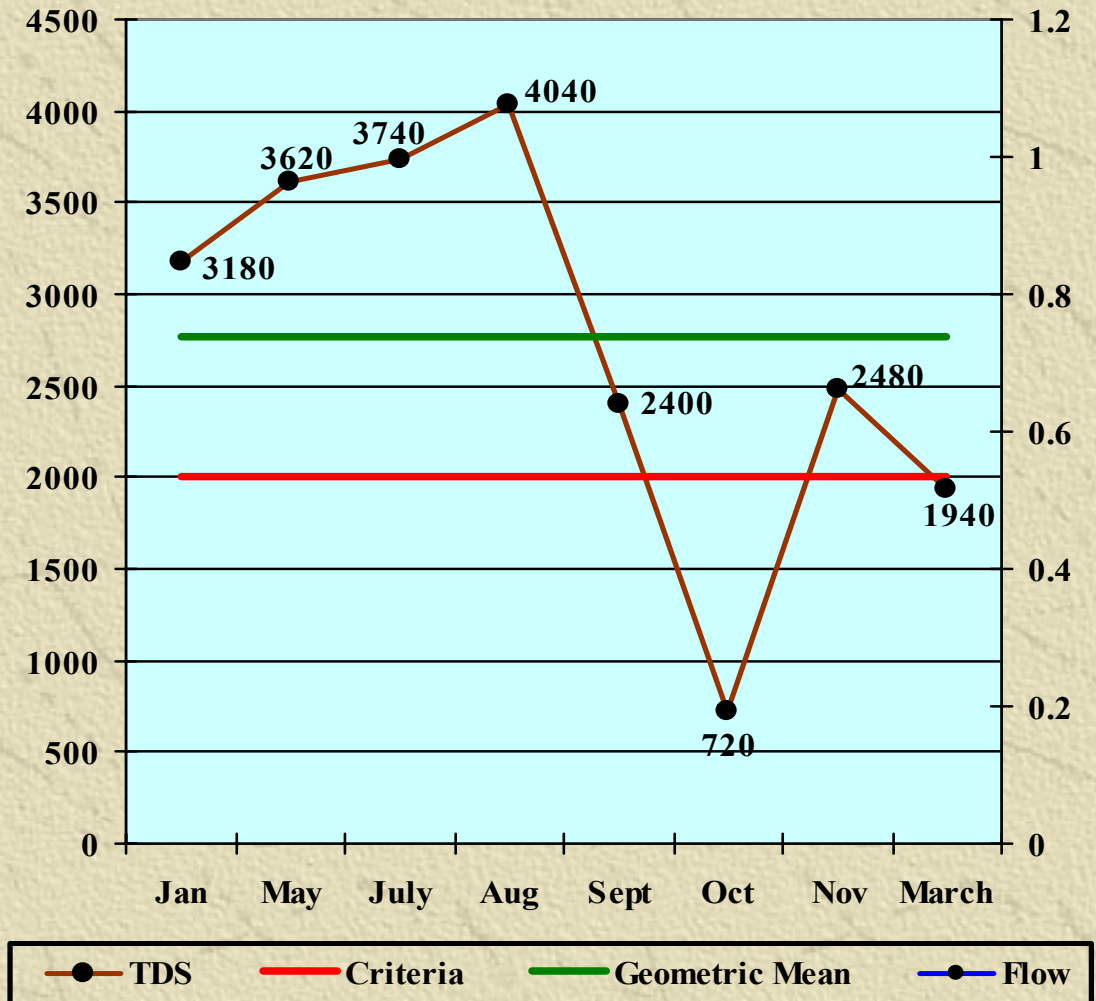
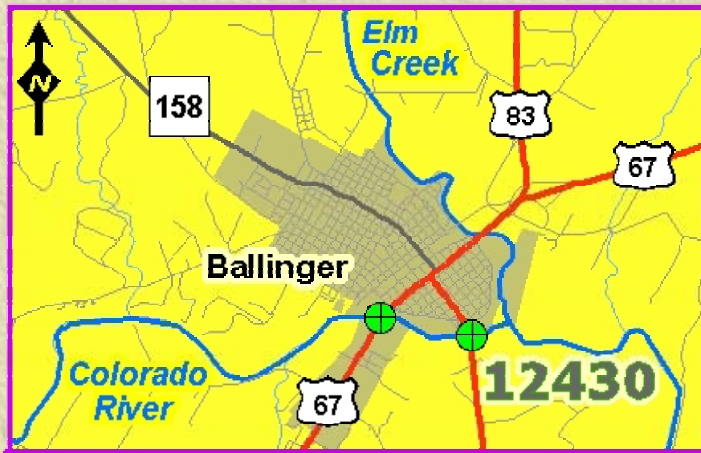


Station ID 13651 Colorado River near Ballinger



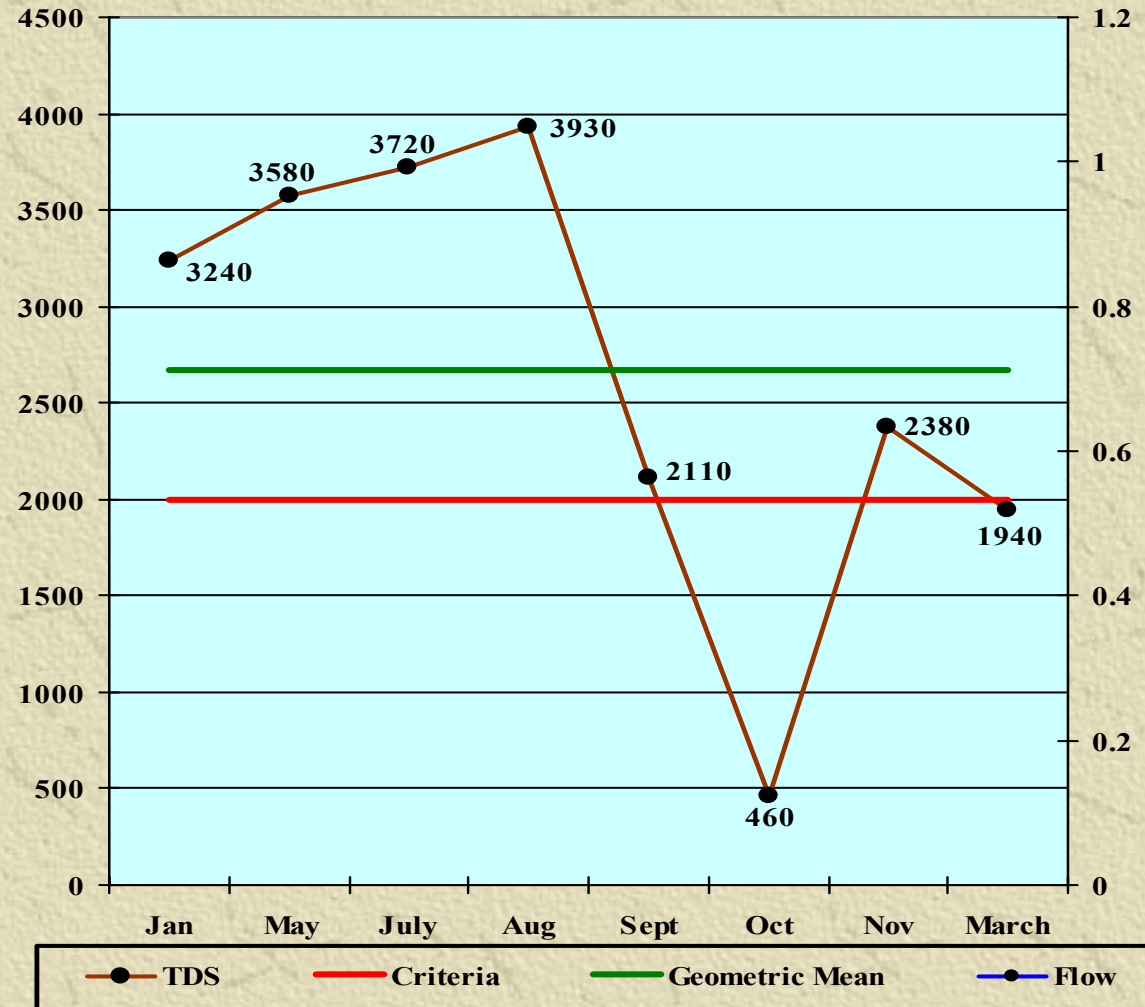
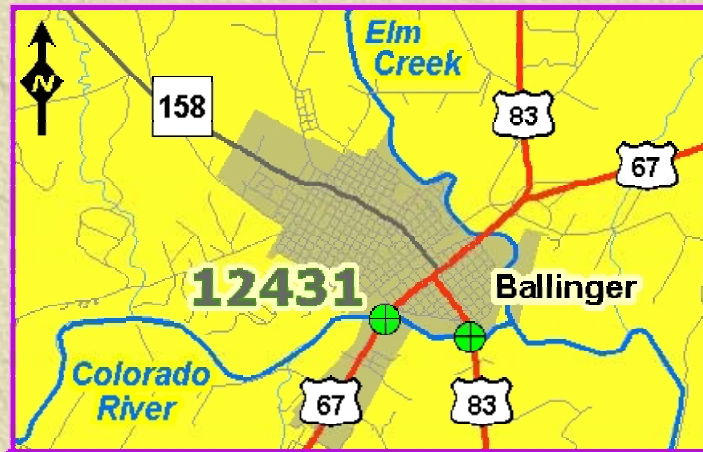


Station ID 12430 Colorado River bridge on US 83 in Ballinger

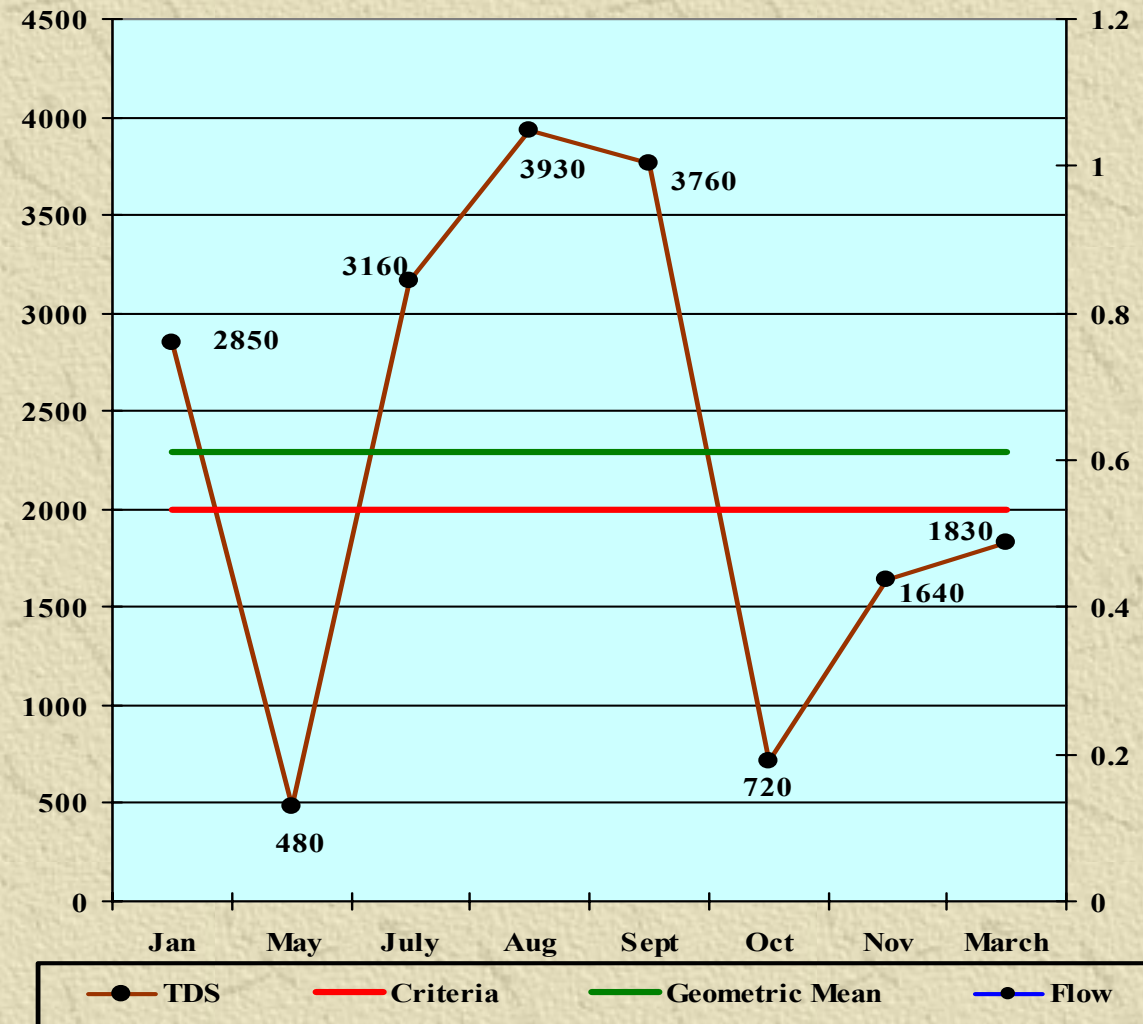




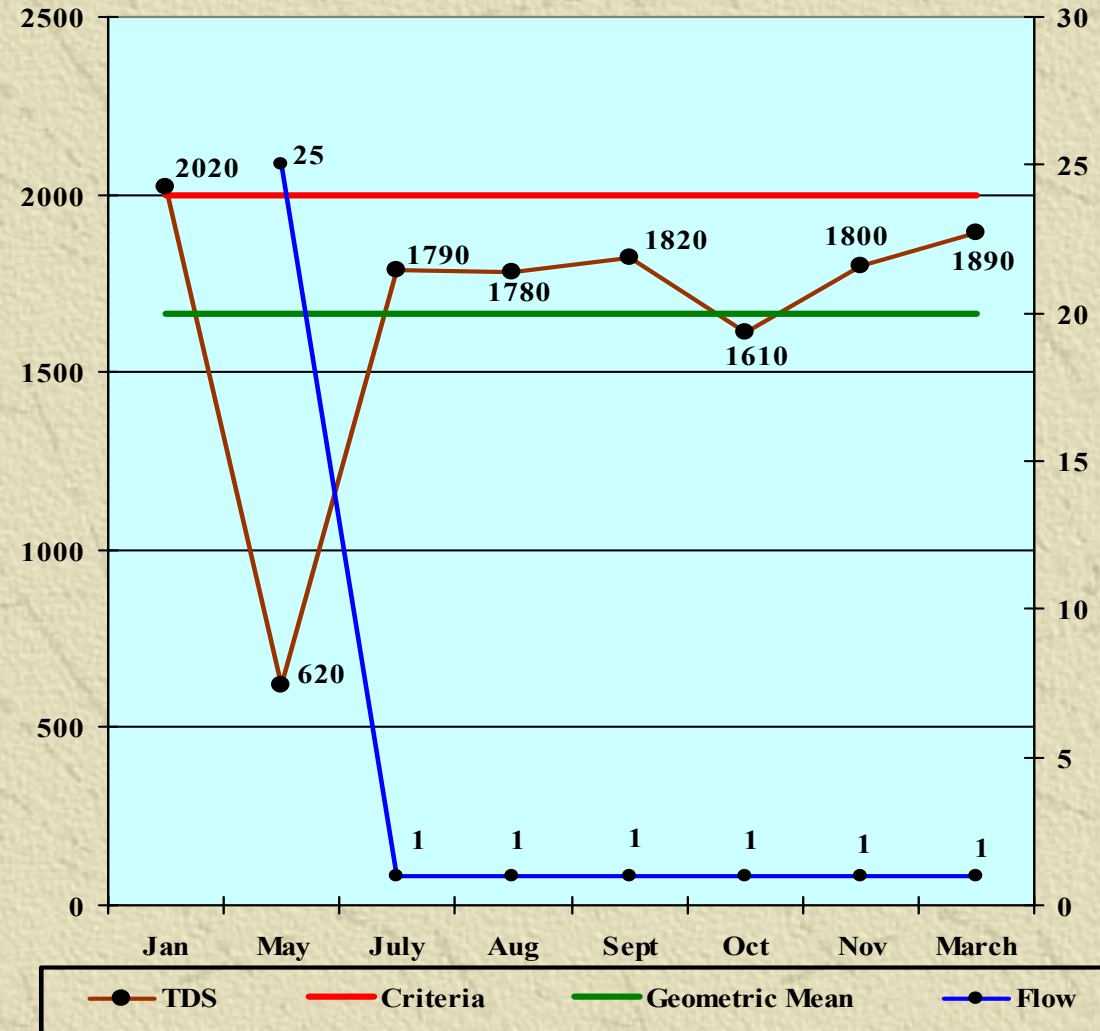
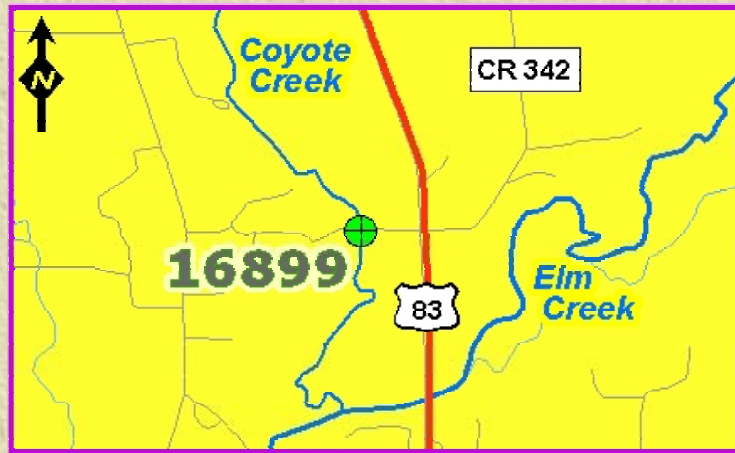
Station ID 12431 Colorado River bridge on US 67



Station ID 17244 Colorado River at Blair Ranch

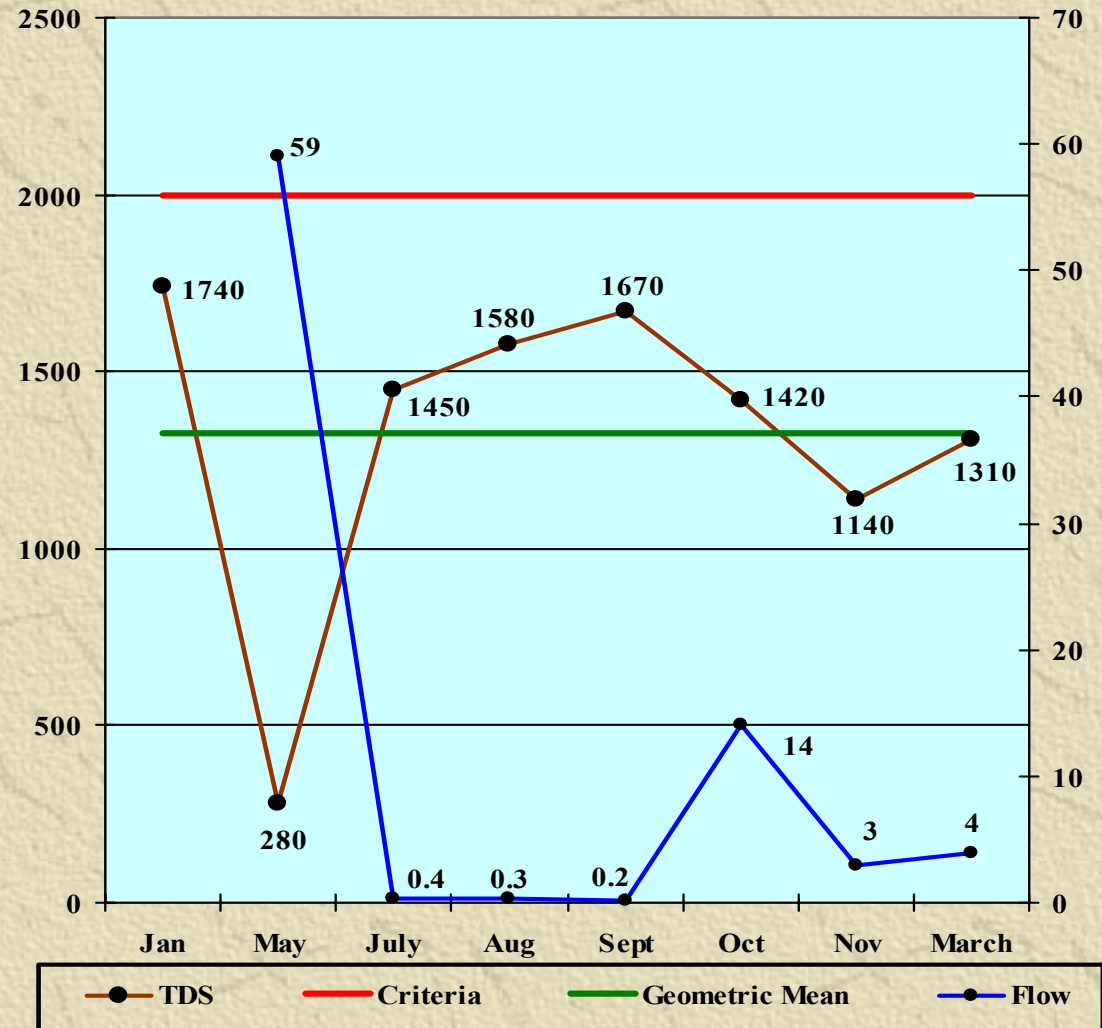


Station ID 16899 Coyote Creek at CR 342





Station ID 12207 Elm Creek at CR 330 four miles north of Ballinger



CONCLUSIONS

✦ Now that the data collection phase of the project is complete, the project team can thoroughly compare data results under baseline, runoff, and storm event conditions to suspect impairment sources, specifically:

- ◆ Salt Cedar
- ◆ Groundwater Migration/Geology
- ◆ Non-compliant Oil & Gas Wells
- ◆ Agriculture

✦ Next Phase – Modeling (The Louis Berger Group)



Questions/Concerns

**[www.tceq.state.tx.us/water/
quality/tmdl/](http://www.tceq.state.tx.us/water/quality/tmdl/)**

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